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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/675,622	09/30/2003	Tasadduq Hussain	17416-01USA/03170	6350

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EXAMINER	
STAICOVICI, STEFAN	

ART UNIT	PAPER NUMBER
1732	

DATE MAILED: 08/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/675,622	HUSSAIN, TASADDUQ	
	Examiner	Art Unit	
	Stefan Staicovici	1732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 June 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *9-26 and 28-33* is/are pending in the application.

4a) Of the above claim(s) *9-26* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *28-33* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. Applicant's amendment filed June 2, 2006 has been entered. Claims 9-26 and 28-33 are pending in the instant application.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gatti (US Patent No. 4,668,177) in view of Martell *et al.* (US Patent No. 4,955,804) and in further view of Gasmire (US Patent No. 3,065,501) and Ikeda (US Patent No. 5,817,348).

Gatti ('177) teaches the basic claimed machine including an injection blow molding apparatus having a turret (10) with at least three planar surfaces (11), said turret being rotated in a counter clockwise direction such that at least one hollow core rod (12) installed on each of said planar surfaces is moved between an injection station (A), a blowing station (B) and a stripping station (C) (see col. 2, lines 14-32 and Figure 1). Further, Gatti ('177) teaches an apparatus for cooling of said hollow core rod including, a cooling manifold (32), inlet and outlet passages (33, 34), radial passages (35, 36) and transverse passages (30, 31) that communicate with the interior

of said hollow core rod (12) such that cooling gas is circulated through said hollow rod core (means for circulating conditioned compressed gas).

Regarding claim 28, although Gatti ('177) teaches a cooling gas, Gatti ('177) does not teach a source of compressed air and means to cool (condition) said compressed air using a pressure regulating means. Martell *et al.* ('804) teach an apparatus for cooling an injection-molding tool (18) including, a pressure regulating source of compressed air (54) and a conditioning/cooling unit (58) for cooling said compressed air (58) (cooling) (see col. 3, lines 15-40 and the Figure). Further, Martell *et al.* ('804) teach that said conditioning/cooling unit (58) has manually operable controls (86,88) that control and vary the temperature of the cooling air and the volume output, hence teaching that said controls (86,88) block passage of cooling air upon zero volume output (see col. 3, lines 37-40) (means for blocking circulation of compressed air from the means for conditioning the compressed air through the at least one core rod). Therefore, it would have been obvious for one of ordinary skill in the art to have provided a pressure regulated source of compressed air and cooling/conditioning means as taught by Martell *et al.* ('804) to cool the core rod in the apparatus of Gatti ('177) because a cooled gas improves cooling efficiency, hence providing for an improved apparatus, and also because the apparatus of Gatti ('177) requires a cooled gas, hence requiring the pressure regulated source of compressed air and cooling/conditioning means of Martell *et al.* ('804) in order to function as described.

Further regarding claim 28, Martell *et al.* ('804) teach exhaust channel means (69) for exhausting the cooling air from the cooled tool into the atmosphere (see Figure). Therefore, it would have been obvious for one of ordinary skill in the art to have provided an exhaust channel

as taught by Martell *et al.* ('804) in the apparatus of Gatti ('177) because of known advantages such as ease of operation, improved cooling efficiency by providing a cooled gas at all times, and also because the apparatus of Gatti ('177) requires a cooled gas, hence requiring the exhaust channel means of Martell *et al.* ('804) in order to function as described.

Further regarding claim 28, Gatti ('177) in view of Martell *et al.* ('804) do not teach means for recompressing and reconditioning the exhausted cooling air. Gasmire ('501) teaches a cooling apparatus including recompressing and reconditioning means for recompressing and reconditioning exhausted cooling gas (see col. 6, lines 5-15). Therefore, it would have been obvious for one of ordinary skill in the art to have provided recompressing and reconditioning means as taught by Gasmire ('501) in the apparatus of Gatti ('177) in view of Martell *et al.* ('804) because, Gasmire ('501) teaches that recompressing and reconditioning of the exhausted cooling gas provides for a more efficient cooling process, hence providing for an improved apparatus.

Further regarding claim 28, Gatti ('177) in view of Martell *et al.* ('804) and in further view of Gasmire ('501) do not teach means for blocking the exhaust system. Ikeda ('348) teaches a blow-molding apparatus including an exhaust system (28) that is selectively blocked in order to selectively permit air to be exhausted to a pressure conditioning system that activates the molding equipment (see col. 5, line 44 through col. 6, line 32 and Figure 1). Therefore, it would have been obvious for one of ordinary skill in the art to provide the selective exhaust means of Ikeda ('348) to the apparatus of Gatti ('177) in view of Martell *et al.* ('804) and in further view

of Gasmire ('501) because Ikeda ('348) teaches that such as exhaust system allows for improved process control, hence providing for an improved apparatus.

4. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Farrell (US Patent No. 3,998,577) in view of Martell *et al.* (US Patent No. 4,955,804) and in further view of Gasmire (US Patent No. 3,065,501) and Ikeda (US Patent No. 5,817,348).

Farrell ('577) teaches the basic claimed machine including, an injection blow molding apparatus and a cooling apparatus having means for circulating a cooling gas within a hollow core rod (see col. 3, lines 22-45 and Figure 5). It is submitted that an injection blow molding apparatus includes a turret with at least three planar surfaces, said turret being rotated in a counter clockwise direction such that at least one hollow core rod installed on each of said planar surfaces is moved between an injection station, a blowing station and a stripping station.

Regarding claim 28, although Farrell ('577) teaches a cooling gas, Farrell ('577) does not teach a source of compressed air and means to cool (condition) said compressed air using a pressure regulating means. Martell *et al.* ('804) teach an apparatus for cooling an injection-molding tool (18) including, a pressure regulated source of compressed air (54) and a conditioning/cooling unit (58) for cooling said compressed air (58) (cooling) (see col. 3, lines 15-40 and the Figure). Further, Martell *et al.* ('804) teach that said conditioning/cooling unit (58) has manually operable controls (86,88) that control and vary the temperature of the cooling air and the volume output, hence teaching that said controls (86,88) block passage of cooling air upon zero volume output (see col. 3, lines 37-40) (means for blocking circulation of compressed air from the means for conditioning the compressed air through the at least one core rod).

Therefore, it would have been obvious for one of ordinary skill in the art to have provided a pressure regulated source of compressed air and cooling/conditioning means as taught by Martell *et al.* ('804) to cool the core rod in the apparatus of Farrell ('577) because a cooled gas improves cooling efficiency, hence providing for an improved apparatus, and also because the apparatus of Farrell ('577) requires a cooled gas, hence requiring the pressure regulated source of compressed air and cooling/conditioning means of Martell *et al.* ('804) in order to function as described.

Further regarding claim 28, Martell *et al.* ('804) teach exhaust channel means (69) for exhausting the cooling air from the cooled tool into the atmosphere (see Figure). Therefore, it would have been obvious for one of ordinary skill in the art to have provided an exhaust channel as taught by Martell *et al.* ('804) in the apparatus of Farrell ('577) because of known advantages such as ease of operation, improved cooling efficiency by providing a cooled gas at all times, and also because the apparatus of Farrell ('577) requires a cooled gas, hence requiring the exhaust channel means of Martell *et al.* ('804) in order to function as described.

Further regarding claim 28, Farrell ('577) in view of Martell *et al.* ('804) do not teach means for recompressing and reconditioning the exhausted cooling air. Gasmire ('501) teaches a cooling apparatus including recompressing and reconditioning means for recompressing and reconditioning exhausted cooling gas (see col. 6, lines 5-15). Therefore, it would have been obvious for one of ordinary skill in the art to have provided recompressing and reconditioning means as taught by Gasmire ('501) in the apparatus of Farrell ('577) in view of Martell *et al.* ('804) because, Gasmire ('501) teaches that recompressing and reconditioning of the exhausted

cooling gas provides for a more efficient cooling process, hence providing for an improved apparatus.

Further regarding claim 28, Farrell ('577) in view of Martell *et al.* ('804) and in further view of Gasmire ('501) does not teach means for blocking the exhaust system. Ikeda ('348) teaches a blow-molding apparatus including an exhaust system (28) that is selectively blocked in order to selectively permit air to be exhausted to a pressure conditioning system that activates the molding equipment (see col. 5, line 44 through col. 6, line 32 and Figure 1). Therefore, it would have been obvious for one of ordinary skill in the art to provide the selective exhaust means of Ikeda ('348) to the apparatus of Farrell ('577) in view of Martell *et al.* ('804) and in further view of Gasmire ('501) because Ikeda ('348) teaches that such as exhaust system allows for improved process control, hence providing for an improved apparatus.

5. Claims 29-30 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gatti (US Patent No. 4,668,177) in view of Martell *et al.* (US Patent No. 4,955,804) and in further view of Ikeda (US Patent No. 5,817,348).

Gatti ('177) teaches the basic claimed machine including an injection blow molding apparatus having a turret (10) with at least three planar surfaces (11), said turret being rotated in a counter clockwise direction such that at least one hollow core rod (12) installed on each of said planar surfaces is moved between an injection station (A), a blowing station (B) and a stripping station (C) (see col. 2, lines 14-32 and Figure 1). Further, Gatti ('177) teaches an apparatus for cooling of said hollow core rod including, a cooling manifold (32), inlet and outlet passages (33, 34), radial passages (35, 36) and transverse passages (30, 31) that communicate with the interior

of said hollow core rod (12) such that cooling gas is circulated through said hollow rod core (means for circulating conditioned compressed gas).

Regarding claim 29, although Gatti ('177) teaches a cooling gas, Gatti ('177) does not teach a source of compressed air and means to cool (condition) said compressed air using a pressure regulating means. Martell *et al.* ('804) teach an apparatus for cooling an injection-molding tool (18) including, a pressure regulating source of compressed air (54) and a conditioning/cooling unit (58) for cooling said compressed air (58) (cooling) (see col. 3, lines 15-40 and the Figure). Further, Martell *et al.* ('804) teach that said conditioning/cooling unit (58) has manually operable controls (86,88) that control and vary the temperature of the cooling air and the volume output. Therefore, it would have been obvious for one of ordinary skill in the art to have provided a pressure regulating source of compressed air and cooling/conditioning means as taught by Martell *et al.* ('804) to cool the core rod in the apparatus of Gatti ('177) because a cooled gas improves cooling efficiency, hence providing for an improved apparatus, and also because the apparatus of Gatti ('177) requires a cooled gas, hence requiring the pressure regulating source of compressed air and cooling/conditioning means of Martell *et al.* ('804) in order to function as described.

Further regarding claim 29, Martell *et al.* ('804) teach exhaust channel means (69) for exhausting the cooling air from the cooled tool into the atmosphere (see Figure). Therefore, it would have been obvious for one of ordinary skill in the art to have provided an exhaust channel as taught by Martell *et al.* ('804) in the apparatus of Gatti ('177) because of known advantages such as ease of operation, improved cooling efficiency by providing a cooled gas at all times, and

also because the apparatus of Gatti ('177) requires a cooled gas, hence requiring the exhaust channel means of Martell *et al.* ('804) in order to function as described.

Further regarding claim 29, although Gatti ('177) in view of Martell *et al.* ('804) teach controls that block passage of cooling air upon zero volume output (see col. 3, lines 37-40 of Martell *et al.* ('804)), Gatti ('177) in view of Martell *et al.* ('804) do not teach separate means for blocking circulation of compressed air from the means for conditioning the compressed air. Ikeda ('348) teaches a blow-molding apparatus including an exhaust system (28) that is selectively blocked in order to selectively permit air to be exhausted to a pressure conditioning system that activates the molding equipment (see col. 5, line 44 through col. 6, line 32 and Figure 1). Therefore, it would have been obvious for one of ordinary skill in the art to provide the selective exhaust means of Ikeda ('348) to block circulation of compressed air from the means for conditioning the compressed air in the apparatus of Gatti ('177) in view of Martell *et al.* ('804) because Ikeda ('348) teaches that such as exhaust system allows for improved process control, hence providing for an improved apparatus.

In regard to claims 30 and 32, Martell *et al.* ('804) teach an apparatus for cooling an injection-molding tool (18) including, a pressure regulating source of compressed air (54) and a conditioning/cooling unit (58) for cooling said compressed air (58) (cooling) (see col. 3, lines 15-40 and the Figure). Further, Martell *et al.* ('804) teach that said conditioning/cooling unit (58) has manually operable controls (86,88) that control and vary the temperature of the cooling air and the volume output. Therefore, it would have been obvious for one of ordinary skill in the art to have provided a pressure regulating source of compressed air and cooling/conditioning means

as taught by Martell *et al.* ('804) to cool the core rod in the apparatus of Gatti ('177) in view of Ikeda ('348) because a cooled gas improves cooling efficiency, hence providing for an improved apparatus, and also because the apparatus of Gatti ('177) in view of Ikeda ('348) requires a cooled gas, hence requiring the pressure regulating source of compressed air and cooling/conditioning means of Martell *et al.* ('804) in order to function as described.

6. Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gatti (US Patent No. 4,668,177) in view of Martell *et al.* (US Patent No. 4,955,804) and in further view of Ikeda (US Patent No. 5,817,348) and Ryder (US Patent No. 4,152,383).

Gatti ('177) in view of Martell *et al.* ('804) and in further view of Ikeda ('348) teaches the basic claimed apparatus as described above.

Regarding claim 31, Gatti ('177) in view of Martell *et al.* ('804) and in further view of Ikeda ('348) do not teach heating means for heating said compressed air. Ryder ('383) teaches an injection-blow molding tool including, a source of compressed air and a heater (41) for heating said compressed air and forcing said heated compressed air through said tool (see col. 5, lines 3-21). Further, Ryder ('383) teaches cooling the core rod using cooling air (see col. 2, lines 46-49), hence Ryder ('383) teaches both cooling and heating said core rod. Therefore, it would have been obvious for one of ordinary skill in the art to have provided a heater as taught by Ryder ('383) to heat the core rod in the apparatus of Gatti ('177) in view of Martell *et al.* ('804) and in further view of Ikeda ('348) because, Ryder ('383) specifically teaches the use of heated air to avoid core freeze-up, hence providing for an improved apparatus by solving the core freeze-up problem.

7. Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gatti (US Patent No. 4,668,177) in view of Martell *et al.* (US Patent No. 4,955,804) and in further view of Ikeda (US Patent No. 5,817,348) and Rosenkranz *et al.* (US Patent No. 4,076,071).

Gatti ('177) in view of Martell *et al.* ('804) and in further view of Ikeda ('348) teaches the basic claimed apparatus as described above.

Regarding claim 33, Gatti ('177) in view of Martell *et al.* ('804) and in further view of Ikeda ('348) do not teach means for injecting a spray of water into said compressed air. Rosenkranz *et al.* ('071) teach a cooling apparatus including a source of cooling gas enriched with a liquid (water). It is submitted that the liquid of Rosenkranz *et al.* ('071) is water and that a source of liquid (water) must be present in the apparatus of Rosenkranz *et al.* ('071) in order to provide cooling gas enriched with a liquid (water). Therefore, it would have been obvious for one of ordinary skill in the art to have provided means to inject a liquid (water) as taught by Rosenkranz *et al.* ('071) in the apparatus of Gatti ('177) in view of Martell *et al.* ('804) and in further view of Ikeda ('348) because, Rosenkranz *et al.* ('071) specifically teach that the injection of a liquid into the cooling gas provides for an increased cooling effect, hence increasing productivity and providing for an improved apparatus.

8. Claim 29-30 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Farrell (US Patent No. 3,998,577) in view of Martell *et al.* (US Patent No. 4,955,804) and in further view of Ikeda (US Patent No. 5,817,348).

Farrell ('577) teaches the basic claimed machine including, an injection blow molding apparatus and a cooling apparatus having means for circulating a cooling gas within a hollow

core rod (see col. 3, lines 22-45 and Figure 5). It is submitted that an injection blow molding apparatus includes a turret with at least three planar surfaces, said turret being rotated in a counter clockwise direction such that at least one hollow core rod installed on each of said planar surfaces is moved between an injection station, a blowing station and a stripping station.

Regarding claim 29, although Farrell ('577) teaches a cooling gas, Gatti ('177) does not teach a source of compressed air and means to cool (condition) said compressed air using a pressure regulating means. Martell *et al.* ('804) teach an apparatus for cooling an injection-molding tool (18) including, a pressure regulating source of compressed air (54) and a conditioning/cooling unit (58) for cooling said compressed air (58) (cooling) (see col. 3, lines 15-40 and the Figure). Further, Martell *et al.* ('804) teach that said conditioning/cooling unit (58) has manually operable controls (86,88) that control and vary the temperature of the cooling air and the volume output. Therefore, it would have been obvious for one of ordinary skill in the art to have provided a pressure regulating source of compressed air and cooling/conditioning means as taught by Martell *et al.* ('804) to cool the core rod in the apparatus of Farrell ('577) because a cooled gas improves cooling efficiency, hence providing for an improved apparatus, and also because the apparatus of Farrell ('577) requires a cooled gas, hence requiring the pressure regulating source of compressed air and cooling/conditioning means of Martell *et al.* ('804) in order to function as described.

Further regarding claim 29, Martell *et al.* ('804) teach exhaust channel means (69) for exhausting the cooling air from the cooled tool into the atmosphere (see Figure). Therefore, it would have been obvious for one of ordinary skill in the art to have provided an exhaust channel

as taught by Martell *et al.* ('804) in the apparatus of Farrell ('577) because of known advantages such as ease of operation, improved cooling efficiency by providing a cooled gas at all times, and also because the apparatus of Farrell ('577) requires a cooled gas, hence requiring the exhaust channel means of Martell *et al.* ('804) in order to function as described.

Further regarding claim 29, although Farrell ('577) in view of Martell *et al.* ('804) teach controls that block passage of cooling air upon zero volume output (see col. 3, lines 37-40 of Martell *et al.* ('804)), Farrell ('577) in view of Martell *et al.* ('804) do not teach separate means for blocking circulation of compressed air from the means for conditioning the compressed air. Ikeda ('348) teaches a blow-molding apparatus including an exhaust system (28) that is selectively blocked in order to selectively permit air to be exhausted to a pressure conditioning system that activates the molding equipment (see col. 5, line 44 through col. 6, line 32 and Figure 1). Therefore, it would have been obvious for one of ordinary skill in the art to provide the selective exhaust means of Ikeda ('348) to block circulation of compressed air from the means for conditioning the compressed air in the apparatus of Farrell ('577) in view of Martell *et al.* ('804) because Ikeda ('348) teaches that such as exhaust system allows for improved process control, hence providing for an improved apparatus.

In regard to claims 30 and 32, Martell *et al.* ('804) teach an apparatus for cooling an injection-molding tool (18) including, a pressure regulating source of compressed air (54) and a conditioning/cooling unit (58) for cooling said compressed air (58) (cooling) (see col. 3, lines 15-40 and the Figure). Further, Martell *et al.* ('804) teach that said conditioning/cooling unit (58) has manually operable controls (86,88) that control and vary the temperature of the cooling air

and the volume output. Therefore, it would have been obvious for one of ordinary skill in the art to have provided a pressure regulating source of compressed air and cooling/conditioning means as taught by Martell *et al.* ('804) to cool the core rod in the apparatus of Farrell ('577) in view of Ikeda ('348) because a cooled gas improves cooling efficiency, hence providing for an improved apparatus, and also because the apparatus of Farrell ('577) in view of Ikeda ('348) requires a cooled gas, hence requiring the pressure regulating source of compressed air and cooling/conditioning means of Martell *et al.* ('804) in order to function as described.

9. Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Farrell (US Patent No. 3,998,577) in view of Martell *et al.* (US Patent No. 4,955,804) and in further view of Ikeda (US Patent No. 5,817,348) and Ryder (US Patent No. 4,152,383).

Farrell ('577) in view of Martell *et al.* ('804) and in further view of Ikeda ('348) teaches the basic claimed apparatus as described above.

Regarding claim 31, Farrell ('577) in view of Martell *et al.* ('804) and in further view of Ikeda ('348) do not teach heating means for heating said compressed air. Ryder ('383) teaches an injection-blow molding tool including, a source of compressed air and a heater (41) for heating said compressed air and forcing said heated compressed air through said tool (see col. 5, lines 3-21). Further, Ryder ('383) teaches cooling the core rod using cooling air (see col. 2, lines 46-49), hence Ryder ('383) teaches both cooling and heating said core rod. Therefore, it would have been obvious for one of ordinary skill in the art to have provided a heater as taught by Ryder ('383) to heat the core rod in the apparatus of Farrell ('577) in view of Martell *et al.* ('804) and in further view of Ikeda ('348) because, Ryder ('383) specifically teaches the use of heated air to

avoid core freeze-up, hence providing for an improved apparatus by solving the core freeze-up problem.

10. Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Farrell (US Patent No. 3,998,577) in view of Martell *et al.* (US Patent No. 4,955,804) and in further view of Ikeda (US Patent No. 5,817,348) and Rosenkranz *et al.* (US Patent No. 4,076,071).

Farrell ('577) in view of Martell *et al.* ('804) and in further view of Ikeda ('348) teaches the basic claimed apparatus as described above.

Regarding claim 33, Farrell ('577) in view of Martell *et al.* ('804) and in further view of Ikeda ('348) do not teach means for injecting a spray of water into said compressed air. Rosenkranz *et al.* ('071) teach a cooling apparatus (11) including a source of cooling gas enriched with a liquid (water). It is submitted that the liquid of Rosenkranz *et al.* ('071) is water and that a source of liquid (water) must be present in the apparatus of Rosenkranz *et al.* ('071) in order to provide cooling gas enriched with a liquid (water). Therefore, it would have been obvious for one of ordinary skill in the art to have provided means to inject a liquid (water) as taught by Rosenkranz *et al.* ('071) in the apparatus of Farrell ('577) in view of Martell *et al.* ('804) and in further view of Ikeda ('348) because, Rosenkranz *et al.* ('071) specifically teach that the injection of a liquid into the cooling gas provides for an increased cooling effect, hence increasing productivity and providing for an improved apparatus.

Response to Arguments

11. Applicant's arguments filed June 2, 2006 have been considered.

12. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

13. Applicant argues that "Martell et al. does not relate to equipment for the injection molding of annular parisons" (see page 13 of the amendment filed 6/2/2006). In response, it is noted that, "[t]he test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference.... Rather, the test is what the combined teachings of those references would have suggested to those of ordinary skill in the art." MPEP §2145(III), citing, In re Keller, 642 F.2d 413, 425, 208 USPQ 871, 881 (CCPA 1981). In this case, the teachings of Martell *et al.* ('804) were used to show that it is known to have a cooling apparatus for a molding tool, wherein the cooling apparatus uses a pressure regulating source of compressed air (54) and a conditioning/cooling unit (58) for cooling said compressed air (58) (cooling) (see col. 3, lines 15-40 and the Figure). Therefore, it would have been obvious for one of ordinary skill in the art to have provided a pressure regulated source of compressed air and cooling/conditioning means as taught by Martell *et al.* ('804) to cool the core rod in the apparatus of Gatti ('177) or Farrell ('577) because a cooled gas improves cooling efficiency, hence providing for an improved apparatus, and also because the apparatus of Gatti ('177) requires a cooled gas, hence requiring the pressure regulated source of compressed air and cooling/conditioning means of Martell *et al.* ('804) in order to function as described.

14. Applicant argues that contrary to the teachings of Gasmire ('501), in the claimed invention "the exhausted air is compressed by a compressor 46 before it is returned to line 20 for recycling" (see page 13 of the amendment filed 6/2/2006). Gasmire ('501) teaches a cooling apparatus including recompressing and reconditioning means for recompressing and reconditioning exhausted cooling gas (see col. 6, lines 5-15). It is noted that Gasmire ('501) teaches recycling a gas, wherein said gas is at "superatmospheric pressure" (col. 6, line 16). Therefore, it is submitted that in order to achieve "superatmospheric pressure," the gas is being compressed as part of the recycling process, hence it is submitted that Gasmire ('501) as a whole teaches recompressing and reconditioning means.

15. Applicant argues that "[t]here is nothing in Ikeda to suggest a means for blocking circulation of compressed air from the means for conditioning compressed air through the core rod at the successive one of stations" (see pages 14 and 16-17 of the amendment filed 6/2/2006). In response, it is noted that, "[t]he test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference.... Rather, the test is what the combined teachings of those references would have suggested to those of ordinary skill in the art." MPEP §2145(III), citing, In re Keller, 642 F.2d 413, 425, 208 USPQ 871, 881 (CCPA 1981). In this case, Ikeda ('348) teaches a blow-molding apparatus including an exhaust system (28) that is selectively blocked in order to selectively permit air to be exhausted to a pressure conditioning system that activates the molding equipment (see col. 5, line 44 through col. 6, line 32 and Figure 1). Therefore, it would have been obvious for one of ordinary skill in the art to provide the selective exhaust means of Ikeda ('348) to block circulation of

compressed air from the means for conditioning the compressed air in the apparatus of Farrell ('577) in view of Martell *et al.* ('804) because Ikeda ('348) teaches that such as exhaust system allows for improved process control, hence providing for an improved apparatus.

16. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Conclusion

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stefan Staicovici, Ph.D. whose telephone number is (571) 272-1208. The examiner can normally be reached on Monday-Friday 9:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson, can be reached on (571) 272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Stefan Staicovici, PhD

Primary Examiner 8/11/06

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August 11, 2006